WEB CHAPTER

Cross-Border Mergers, Acquisitions, and Valuation

LEARNING OBJECTIVES

Examine recent trends in cross-border mergers and acquisitions

Evaluate the motivations for MNEs to pursue cross-border acquisitions

Identify the driving forces behind the recent surge in cross-border mergers and acquisitions

Detail the stages in a cross-border acquisition and show how finance and strategy are intertwined

Examine the difficulties in actually settling a cross-border acquisition

Show how the complexities of postacquisition management are related to the fulfillment of value

Identify the legal and institutional issues regarding corporate governance and shareholder rights as they apply to cross-border acquisitions

Explain the alternative methods for valuing a potential acquisition target
Although there are many pieces to the puzzle of building shareholder value, ultimately it comes down to growth. Chapter 16 described the process of how an MNE will “go global” in search of new markets, resources, productive advantages, and other elements of competition and profit. A more and more popular route to this global growth and expansion is through cross-border mergers and acquisitions. The process of identifying, valuing, and acquiring a foreign firm is the subject of this chapter.

This chapter focuses on identifying and completing a cross-border acquisition transaction. In addition to detailing both the valuation techniques employed and the management of the acquisition process.

Cross-border mergers, acquisitions, and strategic alliances all face similar challenges: they must value the target enterprise on the basis of its projected performance in its market. This process of enterprise valuation combines elements of strategy, management, and finance. Strategically, the potential core competencies and competitive advantages of the target firm attract the acquisition. An enterprise’s potential value is a combination of the intended strategic plan and the expected operational effectiveness to be implemented postacquisition.

The first section of this chapter will detail the arguments and identify the trends in cross-border acquisitions. This will focus on the particularly unique factors in the cross-border acquisition environment. Second, we review the acquisition process. The third section explains the corporate governance and shareholder rights issues raised in cross-border acquisitions. In the fourth section we perform a valuation using an illustrative case, Tsingtao Brewery Company Ltd. of China. We will cover the many different valuation methods employed in industry—and their limitations. The mini-case at the end of the chapter examines the acquisition of Telecom Italia, and the associated failure of corporate governance.

Cross-Border Mergers and Acquisitions

The 1980s and 1990s were characterized by a spate of mergers and acquisitions (M&A) with both domestic and foreign partners. Cross-border mergers have played an important role in this activity. The 1992 completion of the European Union’s Internal Market stimulated many of these investments, as European, Japanese, and U.S. firms jockeyed for stronger market positions within the EU. However, the long-run U.S. growth prospects and political safety in the United States motivated more takeovers of U.S. firms by foreign firms, particularly from the United Kingdom and Japan, than vice versa. This was a reversal of historical trends when U.S. firms were net buyers of foreign firms rather than net sellers to foreign firms.

The latter half of the 1990s and the early years of the twenty-first century saw a number of mega-mergers between multinationals, which changed virtually the entire competitive landscape of their respective global markets. This same period also saw the rise of privatization of enterprise in many emerging markets, creating growth opportunities for MNEs to gain access to previously closed markets of enormous potential.

THE DRIVING FORCE: SHAREHOLDER VALUE CREATION

What is the true motivation for cross-border mergers and acquisitions? The answer is the traditional one: to build shareholder value.

Exhibit W.1 tries, in a simplistic way, to model this global expansion. Publicly traded MNEs live and die, in the eyes of their shareholders, by their share price. If the
Increasing the share price means increasing the earnings. Management directly controls through its efforts the earnings per share of the firm. Management only indirectly influences the market’s opinion of the company’s earnings as reflected in the P/E.

So building "value" means growing the firm to grow earnings. The largest growth potential is global.

MNE’s share price is a combination of the earnings of the firm and the market’s opinion of those earnings, the price-to-earnings multiple, then management must strive to grow both.

Management’s problem is that it does not directly influence the market’s opinion of its earnings. Although management’s responsibility is to increase its P/E ratio, this is a difficult, indirect, and long-term process of communication and promise fulfillment. Over the long term, the market—analysts, investors, and institutional stakeholders—will look to the ability of the management to deliver on the promises made in meetings, advertisements, annual reports, and at the stockholders’ meetings. But the opinion of markets as reflected in P/E ratios is infamously fickle. (The astronomic share prices garnered by many dot.com firms in the years before the bust is the most obvious example.) But management does directly affect earnings. Increasing the earnings per share (EPS) is within the direct control of the firm. In many of the developed country markets today the growth potential for earnings in the traditional business lines of the firm is limited. Competition is fierce; margins are under continual pressure. Senior management of the firm cannot ignore these pressures. Indeed they must continually undertake activities to promote brand, decrease inventory investments, increase customer focus and satisfaction, streamline supply chains, and manage all the other drivers of value in global business. Nevertheless, they must also look outward to build value.

In contrast to the fighting and scraping for market shares and profits in traditional domestic markets, the global marketplace offers greater growth potential—greater “bang for the buck.” As Chapter 16 described, there are a variety of paths by which the MNE can enter foreign markets, including greenfield investment and acquisition.

**CROSS-BORDER MERGERS AND ACQUISITIONS DRIVERS**

In addition to the desire to grow, MNEs are motivated to undertake cross-border mergers and acquisitions by a number of other factors. The United Nations Conference on Trade and Development (UNCTAD, formerly the U.N. Centre for Transnational Corporations) has summarized the mergers and acquisitions drivers and forces relatively well in Exhibit W.2.
The drivers of M&A activity are both macro in scope—the global competitive environment—and micro in scope—the variety of industry and firm-level forces and actions driving individual firm value. The primary forces of change in the global competitive environment—technological change, regulatory change, and capital market change—create new business opportunities for MNEs, which they pursue aggressively.

But the global competitive environment is really just the playing field, the ground upon which the individual players compete. MNEs undertake cross-border mergers and acquisitions for a variety of reasons. As shown in Exhibit W.2, the drivers are strategic responses by MNEs to defend and enhance their global competitiveness by

- Gaining access to strategic proprietary assets.
- Gaining market power and dominance.
- Achieving synergies in local/global operations and across industries.
- Becoming larger, and then reaping the benefits of size in competition and negotiation.
- Diversifying and spreading their risks wider.
- Exploiting financial opportunities they may possess and others desire.

As opposed to greenfield investment, a cross-border acquisition has a number of significant advantages. First and foremost, it is quicker. Greenfield investment frequently requires extended periods of physical construction and organizational development. By acquiring an existing firm, the MNE shortens the time required to gain a presence and facilitate competitive entry into the market. Second, acquisition may be a cost-effective way of gaining competitive advantages such as technology, brand names valued in the target market, and logistical and distribution advantages, while simultaneously eliminating a local competitor. Third, specific to cross-border acquisitions, international economic, political, and foreign exchange conditions may result in market imperfections, allowing target firms to be undervalued. Many enterprises throughout Asia have been the target of acquisition as a result of the Asian economic crisis’s impact on their financial health. Many enterprises were in dire need of capital injections from so-called white knights for competitive survival.
Cross-border acquisitions are not, however, without their pitfalls. As with all acquisitions—domestic or cross-border—there are problems of paying too much or suffering excessive financing costs. Melding corporate cultures can be traumatic. Managing the postacquisition process is frequently characterized by downsizing to gain economies of scale and scope in overhead functions. This results in nonproductive impacts on the firm as individuals attempt to save their own jobs. Internationally, additional difficulties arise from host governments intervening in pricing, financing, employment guarantees, market segmentation, and general nationalism and favoritism. In fact, the ability to successfully complete cross-border acquisitions may itself be a test of competency of the MNE in the twenty-first century.

The Cross-Border Acquisition Process

Although the field of finance has sometimes viewed acquisition as mainly an issue of valuation, it is a much more complex and rich process than simply determining what price to pay. As depicted in Exhibit W.3, the process begins with the strategic drivers discussed in the previous section.

The process of acquiring an enterprise anywhere in the world has three common elements: 1) identification and valuation of the target, 2) completion of the ownership change transaction—the tender, and 3) management of the postacquisition transition.

**STAGE 1: IDENTIFICATION AND VALUATION**

Identification of potential acquisition targets requires a well-defined corporate strategy and focus.

**IDENTIFICATION.** The identification of the target market typically precedes the identification of the target firm. Entering a highly developed market offers the widest
choice of publicly traded firms with relatively well-defined markets and publicly disclosed financial and operational data. Emerging markets frequently require the services of acquisition specialists who can aid in the identification of firms—generally privately held or government-owned firms—that not only possess promising market prospects but may be amenable to suitors. Emerging markets pose additional problems, including scant financial data, limited depth of management, government restrictions on foreign purchases, and the fact that few firms are publicly traded. The growth of privatization programs in emerging markets in the latter half of the 1990s did, however, provide a number of new targets for cross-border acquisitions that would have been unavailable in previous times.

**VALUATION.** Once identification has been completed, the process of valuing the target begins. A variety of valuation techniques are widely used in global business today, each with its relative merits. In addition to the fundamental methodologies of discounted cash flow (DCF) and multiples (earnings and cash flows), there are also a variety of industry-specific measures that focus on the most significant elements of value in business lines.

For example, the case of Tsingtao Brewery in China, analyzed later in this chapter, focuses on the valuation of a brewery business. In this industry, the cost per tonne of brewing capacity of the business is an industry-specific valuation method frequently employed. In the field of valuation, “more is better when using valuation methods.” The completion of a variety of alternative valuations for the target firm aids not only in gaining a more complete picture of what price must be paid to complete the transaction, but also in determining whether the price is attractive.

**STAGE 2: SETTLEMENT OF THE TRANSACTION**

The term *settlement* is actually misleading. Once an acquisition target has been identified and valued, the process of gaining approval from management and ownership of the target, getting approvals from government regulatory bodies, and finally determining method of compensation can be time-consuming and complex.

**TENDER PROCESS.** Gaining the approval of the target company has itself been the subject of some of the most storied acquisitions in history. The critical distinction here is whether the acquisition is supported or not by the target company’s management.

Although there is probably no “typical transaction,” many acquisitions flow relatively smoothly through a friendly process. The acquiring firm will approach the management of the target company and attempt to convince them of the business logic of the acquisition. (Gaining their support is sometimes difficult, but assuring target company management that it will not be replaced is often quite convincing!) If the target’s management is supportive they may then recommend to stockholders that they accept the offer of the acquiring company. One problem that does occasionally surface at this stage is that influential shareholders may object to the offer, either in principle or based on price, and therefore feel that management is not taking appropriate steps to protect and build their shareholder value.

The process takes on a very different dynamic when the acquisition is not supported by target company management—the so-called *hostile takeover*. The acquiring company may choose to pursue the acquisition without the target’s support and go
directly to the target shareholders. In this case the tender offer is made publicly, although target company management may openly recommend that its shareholders reject the offer. If enough shareholders take the offer, the acquiring company may gain sufficient ownership influence or control to change management. During this rather confrontational process it is up to the board of the target company to continue to take actions consistent with protecting the rights of shareholders. The board may need to provide rather strong oversight of management during this process, to ensure that management does not take actions consistent with its own perspective but not with protecting and building shareholder value.

REGULATORY APPROVAL. The proposed acquisition of Honeywell International (a recent merger of Honeywell US and Allied-Signal US) by General Electric (USA) in 2001 was something of a watershed event in the field of regulatory approval. General Electric’s acquisition of Honeywell had been approved by management, ownership, and U.S. regulatory bodies.

The final stage was the approval of European Union antitrust regulators. Jack Welch, the charismatic chief executive officer and president of General Electric, did not anticipate the degree of opposition that the merger would face from EU authorities. After a continuing series of demands by the EU that specific businesses within the combined companies be sold off to reduce anticompetitive effects, Welch withdrew the request for acquisition approval, arguing that the liquidations would destroy most of the value-enhancing benefits of the acquisition. The acquisition was canceled. This case may have far-reaching effects on cross-border M&A for years to come, as the power of regulatory authorities within strong economic zones like the EU to block the combination of two MNEs, in this case two U.S.-based MNEs, may foretell a change in regulatory strength and breadth.

COMPENSATION SETTLEMENT. The last act within this second stage of cross-border acquisition is the payment to shareholders of the target company. Shareholders of the target company are typically paid either in shares of the acquiring company or in cash. If a share exchange occurs, which exchange may be defined by some ratio of acquiring company shares to target company shares (say, two shares of acquirer in exchange for three shares of target), the stockholder is typically not taxed. The shareholder’s shares of ownership have simply been replaced by other shares in a nontaxable transaction.

If cash is paid to the target company shareholder, it is the same as if the shareholder has sold the shares on the open market, resulting in a capital gain or loss (a gain, it is hoped, in the case of an acquisition) with tax liabilities. Because of the tax ramifications, shareholders are typically more receptive to share exchanges so that they may choose whether and when tax liabilities will arise.

A variety of factors go into the determination of type of settlement. The availability of cash, the size of the acquisition, the friendliness of the takeover, and the relative valuations of both acquiring firm and target firm affect the decision. One of the most destructive forces that sometimes arise at this stage is regulatory delay and its impact on the share prices of the two firms. If regulatory body approval drags out over time, the possibility of a drop in share price increases and can change the attractiveness of the share swap. The following Real World Example W.1 illustrates the problems firms confronted recently in settling cross-border acquisition with shares.
Real World Example W.1
CASH OR SHARES IN PAYMENT

One factor influencing not only the number but the method of payment used in cross-border mergers and acquisitions is the equity “altitudes” of many MNEs. One of the major drivers of cross-border M&A growth in 1999 and 2000 was the lofty levels of equity values. Many MNEs found the higher equity prices allowed what the financial press termed “shopping sprees” in which the acquiring firms could afford more M&As as a result of inflated equity prices. This allowed them to bid higher for potential targets and then pay with their own shares.

But 2001 was different. Falling equity prices in most of the major equity markets of the world made acquisitions much more costly prospects than in the previous years. Shareholders of target firms were no longer interested in being paid in shares, demanding cash payments at significant premiums. (Premiums over the latter half of the 1990s and into 2000 and 2001 averaged between 48% and 55% over existing share values prior to the acquisition offers.)

With slower economies and lower growth prospects, even the banking sectors were increasingly critical of grandiose promises of M&A synergies and benefits in general. As banks and other potential cash providers looked upon potential M&A deals with increasing scrutiny, sources of debt for cash payments also became more scarce. The financing for settlement made cross-border M&A activity much tougher to complete.

STAGE 3: POSTACQUISITION MANAGEMENT

Although the headlines typically focus on the valuation and bidding process in an acquisition transaction, posttransaction management is probably the most critical of the three stages in determining an acquisition’s success or failure. An acquiring firm can pay too little or too much, but if the posttransaction is not managed effectively, the entire return on the investment is squandered. Postacquisition management is the stage in which the motivations for the transaction must be realized. Those reasons, such as more effective management, synergies arising from the new combination, or the injection of capital at a cost and availability previously out of the reach of the acquisition target, must be effectively implemented after the transaction. The biggest problem, however, is nearly always melding corporate cultures.

As painfully depicted in the case of British Petroleum (United Kingdom) and Amoco (United States) in the above Real World Example W.2, the clash of corporate cultures and personalities pose both the biggest risk and the biggest potential gain from cross-border mergers and acquisitions. Although not readily measurable like price/earnings ratios or share price premiums, in the end the value is either gained or lost in the hearts and minds of the stakeholders.

Corporate Governance and Shareholder Rights

By takeover bid (tender offer) we mean an unsolicited offer by an unaffiliated third party and/or his group (“Bidder”) to acquire enough voting shares of a target company (“Target”) in another jurisdiction so that the shares acquired, plus the shares held before the offer was made, give Bidder control in fact or in law of the Target.

A popular joke in Amoco hallways goes: What's the British pronunciation of BP-Amoco? BP—the Amoco is silent.

LONDON—BP and Amoco called it a merger of equals. But over coffee and sandwiches one day in the BP cafeteria here, Amoco Corp. executives discovered that British Petroleum PLC had other plans.

During a conference of 20 top executives from both companies last fall, Rodney Chase, then BP's deputy chief executive, unveiled the blueprint for the merged company. It would be led by BP management, run with BP's structure and infused with BP's do-or-die culture. Anyone who didn't agree was welcome to join the 10,000 other workers who were being fired.

In Chicago during negotiations, Mr. Browne [BP's chief executive] and Amoco Chief Executive Lawrence Fuller wrestled with the question of management control. It was clear that BP would be the acquirer, since it was larger, but Mr. Fuller wondered whether the two companies could combine the “best of both” management worlds. Mr. Browne was unequivocal. “It was not negotiable for us,” he said in a recent interview. “We had developed a structure and systems that had worked for us, and we were anxious to apply it to a larger company.”

Indeed, at the heart of BP is an unusual management structure and culture that it aims to stamp on other companies. The system grew from the company's near-fatal crisis in 1992, when then-CEO Robert Horton was ousted in a boardroom coup, the company’s dividend was cut in half and a single quarter’s loss topped $1 billion. The subsequent restructuring essentially turned the company into a giant family of entrepreneurial small businesses.

The system clashed badly with Amoco. More like a classic pyramid, Amoco had strict reporting lines and heavy internal bureaucracy. Managers often spent months negotiating contracts with internal businesses. Amoco’s executive suite on the 50th floor in Chicago was a formal corridor of closed doors and strict schedules. BP's fourth-floor suite in London is an open-plan space with glass walls, where top executives breeze in and out of each other's offices.

Company memos began showing up with British spellings, prompting complaints in the BP Amoco newsletter about use of the words “organisation” and “labour.” BP jargon was lost on some Amoco executives. In meetings, BP’s managers lived on “hard targets” that had to be met, while Amoco talked about “aspirations” that were only occasionally reached. BP raved about “peer groups,” while Amoco talked about “strategic-planning councils.”

The culture clash came to a head in the cafeteria meeting last fall at BP headquarters. While most managers expected BP would dominate the merged company, few anticipated that its grip would be so strong. During the all-day conference, Amoco managers argued the case for a centralized structure, while their BP counterparts said it wouldn’t work. “You’re not interested at all in our ideas,” said one Amoco executive. Another said: “We weren’t prepared for this.” Sensing a crisis, Mr. Fuller stood up, a BP executive says, and gave his troops a final order: “We’re going to use the BP systems, and that’s that.”


THE TENDER AND SHAREHOLDER RIGHTS

One of the most controversial issues in shareholder rights is at what point in the accumulation of shares the bidder is required to make all shareholders a tender offer. For example, a bidder may slowly accumulate shares of a target company by gradually buying shares on the open market over time. Theoretically, this share accumulation could continue until the bidder had 1) the single largest block of shares among all individual shareholders, 2) majority control, or 3) all the shares outright. Every country possesses a different set of rules and regulations for the transfer of control of publicly traded corporations. This market, the market for corporate control, has been the subject of enormous debate in recent years.
The regulatory approach taken toward the market for corporate control varies widely across countries. The elements of the regulation of cross-border takeovers typically includes the following 10 elements.

1. **Creeping tenders.** Many countries prohibit *creeping tenders*, the secret accumulation of relatively small blocks of stock, privately or in the open market, in a preliminary move toward a public bid. This prohibition is intended to promote public disclosure of bids for takeovers.

2. **Mandatory offers.** Many countries require that the bidder make a full public tender offer to all shareholders when a certain threshold of ownership has been reached. This requirement is intended to extend the opportunity to all shareholders to sell their shares at a tender price to a bidder gaining control, rather than have the bidder pay the tender price only to those shareholders it needs to garner control.

3. **Timing of takeovers.** A wide spectrum of different time frames apply to takeover bids. This is typically the time period over which the bid must be left open for each individual tender, withdrawal of tender, or revision of tender. The purpose of establishing a time frame is to allow bidders and targets alike to consider all potential offers and for information regarding the tender to reach all potential shareholders.

4. **Withdrawal rights.** Most countries allow any security to be withdrawn as long as the bid is open. In some countries a competing bid automatically revokes all acceptances as long as the bid remains open. The right of revocation is to protect shareholders against tendering their shares early at lower prices than may be garnered by waiting for a later offer by any competing bidder.

5. **Market purchases during bid.** Some countries allow the bidder to purchase shares in the open market during the public tender with public disclosure. Many countries, however, prohibit purchases absolutely during this period. This prohibition is to protect against any potential market manipulation by either bidder or target during the tender period.

6. **Market sales during bid.** Some countries prohibit the sale of the target company’s shares by the bidder during the tender offer period. This rule is to protect against any potential market manipulation by either bidder or target during the tender period.

7. **Limitation of defenses.** Some jurisdictions limit the defensive tactics a target may take during a public tender offer. In many countries this limitation has not been stated in law but has been refined through shareholder law suits and other court rulings subsequent to measures taken by target company management to frustrate bidders. It is intended to protect shareholders against management taking defensive measures that are not in the best interests of shareholders.

8. **Price integration.** Most countries require that the highest price paid to any shareholder for their shares be paid to all shareholders tendering their shares during the public tender. Some countries require that this price be also provided to those selling shares to the bidder in the prebid purchases as well. Although intended in principle to guarantee equity in price offerings, this is a highly complex provision in many countries that allow two-tier bids.

9. **Proration of acceptances.** Most countries which regulate takeovers require *proration* when a bid is made for less than all the shares and more than the maxi-
Once a firm has gained majority control of a target, many countries require that the remaining minority shareholders tender their shares. This requirement is to prevent minority shareholders from hindering the decision-making process of the owners, or requiring the owners to continue to take actions or incur expenses to serve a few remaining minority shareholders.

One example of this abuse was the case of Vodafone’s acquisition of Mannesmann of Germany in 2000. By August 2001 Vodafone had gained ownership of 99.4% of Mannesmann’s outstanding shares. Because minority shareholders holding a total of 7,000 shares refused to sell, and were not required to sell under German law even though the majority of shareholders had decided to sell the firm, Vodafone was required to continue to hold stockholder’s meetings in Germany for their benefit. Under German corporate governance laws, because this was a cross-border acquisition, minority shareholders could not be forced to tender their shares. If, however, the acquisition had been domestic, these same minority shareholders would have been required to sell their shares at the publicly tendered price.

The Vodafone acquisition of Mannesmann is considered by many as a watershed event in Continental European mergers and acquisitions history. The acquisition marked the first large-scale cross-border hostile takeover in recent times. After Vodafone’s takeover, the German federal government initiated legislation for the governance of acquisitions and a procedure for the future “squeeze out” of minority shareholders.
THE CHALLENGE AND THE OPPORTUNITY

Tsingtao Brewery Company Ltd. is the largest brewer in China. The first beer manufacturer in modern times, Tsingtao traced its roots to Tsingtao Brewery Factory established in 1903 in Qingdao, China by German immigrants. But much had changed in a century of Chinese history and development. Tsingtao in January 2001 was a publicly traded company in an increasingly open marketplace. Tsingtao operated 43 breweries, 2 malt plants, and 49 distribution companies covering 15 provinces in China. It was considered to be the number-one branded consumer product exported from China, selling under a variety of brews including Dragon, Phoenix, and Premium. Tsingtao was also China’s largest single consumer product exporter, and was continuing to expand, with exports to more than 30 countries. Tsingtao and its two largest rivals, Beijing Yanjing and Guangzhou Zhujiang, were now in the midst of a highly competitive market. There were and estimated 800 breweries in China. Consolidation of brewers was the only method of survival.

The company was gaining the attention of investors inside and outside of China. The value proposition for Tsingtao was increasingly clear: it had gained the upper hand in its market through recent acquisitions, acquisitions which would now begin to add earnings with rationalization and modernization through Tsingtao’s operational excellence. Tsingtao seemed positioned for strong earnings growth, and was increasingly viewed as a potential acquisition target.

By early 2001, Tsingtao was struggling with the postmerger digestion of its acquisition binge, in addition to finding itself under heavy debt-service pressures from the rising debt used to finance the acquisitions. Management concluded that the company’s debt burden — and bright prospects for future earnings and cash flows — made raising additional equity both necessary and feasible.

- **Tsingtao’s operational excellence.** Tsingtao was known for its operational excellence. It had worked constantly throughout the 1990s to increase the efficiency of its operations, specifically in its use of net working capital. But the task was compounded by the multitudes of acquisitions of small regional operators that were small in scale and low in technology. While sales per day had more than doubled from Rmb4.4 million (1998) to Rmb9.4 million (2000), total net working capital had actually fallen by two thirds, from Rmb676.7 million to Rmb201.5 million. The net working capital to sales ratio had fallen from 0.42 to only 0.06 in 2000.

- **Tsingtao’s operating results.** Tsingtao has enjoyed rapid sales growth, both from existing business units and through acquisition. The company’s gross margin and operating margin had remained stable over recent years. This was a significant accomplishment given the many acquisitions made in recent years.

In general, it appeared that Tsingtao had 1) been growing rapidly; 2) maintaining a gross profit margin which was healthy for its industry — despite taking on 34 acquisitions in the past four years; 3) suffered from higher depreciation and amortization expenses related to modernization and acquisition efforts, respectively; and 4) demonstrated a declining overall profitability as a result.
**MEASURES OF CASH FLOW**

Financial theory has traditionally defined value as the present value of expected future cash flows. We then need to isolate the gross and free cash flows of Tsingtao for valuation purposes, and Tsingtao’s statement of cash flows is a good place to start.

The statement of cash flows is constructed in three segments, operating activities, investing activities, and financing activities. Tsingtao’s operating activities are illustrated in the top portion of Exhibit W.4. They begin with earnings before tax, then reduce cash flows by taxes paid (cash taxes), add back depreciation and amortization expenses, and finally add changes in net working capital.

Depreciation and amortization are defined as noncash expenses. Cash expenses (capex) are for labor or materials purchased by the firm, where cash payments must be paid to the providers of these inputs. Depreciation is a charge for investments made in capital equipment. Amortization is a charge for investments made in other companies (acquisitions) over and above the value of the assets purchased. Although they are deductible expenses for tax purposes, cash is never paid out by the firm. The depreciation and amortization expenses must therefore be added back in for calculation of actual cash flows.

Net working capital (NWC) is the net amount of capital that the firm invests in the actual production and sales of its product. It is calculated as follows:

\[
NWC = (\text{Accounts receivable} + \text{inventories}) - (\text{accounts payable})
\]

**EXHIBIT W.4**

Tsingtao Brewing Company Ltd., Measures of Cash Flow (millions of Rmb)

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<th>Statement of Cash Flows</th>
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<tr>
<td><strong>Operating Cash Flow Calculation</strong></td>
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<td>Acronym</td>
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<tr>
<td>Earnings before taxes</td>
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<tr>
<td>Less corporate income tax</td>
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<tr>
<td>Add back depreciation and amortization</td>
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<tr>
<td>Less additions to net working capital</td>
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<td>Operating cash flow</td>
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<th>Cash Flows for Valuation</th>
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<td><strong>Calculation of NOPAT</strong></td>
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<td>Acronym</td>
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<tr>
<td>Earnings before interest and taxes</td>
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<tr>
<td>Less taxes (recalculated)</td>
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<td><strong>Net operating profit after taxes</strong></td>
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<th><strong>Calculation of Operating Cash Flow</strong></th>
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<td>Acronym</td>
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<td>Net operating profit after taxes</td>
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<td>Add back depreciation and amortization</td>
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<td>Operating cash flow</td>
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<tr>
<th><strong>Calculation of Free Cash Flow</strong></th>
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<tr>
<td>Acronym</td>
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<tr>
<td>Net operating profit after taxes</td>
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<tr>
<td>Add back depreciation and amortization</td>
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<tr>
<td>Less additions to net working capital</td>
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<tr>
<td>Less capital expenditures</td>
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<td>Free cash flow</td>
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Intuitively, these are the line items of the company’s balance sheet that change spontaneously with sales. For example, for Tsingtao to make a sale it must purchase hops and barley (accounts payable), brew its various beers (inventory), and make sales to distributors (accounts receivable). Net working capital is typically a positive number because receivables and inventories exceed accounts payable for most firms in most industries (about 99% of the time).

**VALUATION CASH FLOWS.** Operating cash flow as calculated and recorded on the statement of cash flows is not the measure of cash flow we need for valuation purposes. The lower half of Exhibit W.4 illustrates the calculation of net operating profit after-tax and free cash flow for valuation purposes. Net operating profit after taxes (NOPAT) — in all its various forms — is calculated as follows:

\[
\text{Net operating profit after-tax (NOPAT)} = \text{Operating profit} - \text{taxes} = \text{EBITDA} - \text{taxes} = \text{EBT} + \text{depreciation} + \text{amortization} + \text{interest} - \text{taxes}
\]

For Tsingtao in 2000, net operating profit after taxes (NOPAT) was a positive Rmb145.1 million. The three versions are shown to aid in deciphering the many abbreviations and terms so frequently confronted in earnings and valuation analyses in practice.

NOPAT is a cash flow measure of basic business profitability. What it does not contain, however, are the two areas of investment made by Tsingtao as the company continued to sustain and grow the business. Sustaining a business requires investment in NWC and capex. Any increase in NWC is a reduction of cash flow, any decrease an increase in cash flow. Capex is any new investment to replace old equipment, to acquire new equipment and technology, or acquire other businesses, and reduces available free cash flow. The addition of these new investment drains on cash flow to NOPAT create the desired measure of cash flow for valuation purposes, free cash flow:

\[
\text{Free cash flow (FCF)} = \text{NOPAT} + \text{changes in NWC} - \text{capex}
\]

Tsingtao’s free cash flow in 2000 was a negative Rmb792.5 million. Although Tsingtao’s operations are generating a substantial positive cash flow after taxes, and initiatives to reduce net working capital have added significant cash flow, the firm’s modernization and acquisition strategies have required substantial capital expenditures. The net result is a negative free cash flow for the year 2000.

**TSINGTAO’S DISCOUNTED CASH FLOW VALUATION**

Now that Tsingtao’s current financial results have been analyzed and decomposed, we turn our attention to what Tsingtao’s discounted future cash flow will look like. There are three critical components to construct a discounted cash flow valuation of Tsingtao: 1) expected future free cash flows; 2) terminal value; and 3) the risk-adjusted discount rate.

**FREE CASH FLOW FORECAST.** Forecasting Tsingtao’s future free cash flows requires forecasting NOPAT, net working capital, and capital expenditures individually.

The source of value of Tsingtao was its operating profits and the recent acquisitions that were expected to grow and improve in both sales and profitability with continued technology and management injections. NOPAT was expected to grow 25% in
2001, 20% in 2002, 15% in 2003, and 10% in 2004 and 2005. The NOPAT forecast and discounted cash flow valuation is shown in Exhibit W.5. With rapid growth forecast, NWC was now expected to be maintained at roughly 5.8% of sales throughout the analysis period.

Most firms have relatively poor capabilities to plan for needed replacement investment or technological upgrades with innovations. Capital expenditures had been enormous in 1999 and 2000 as a result of the 29 acquisitions made in those two years alone. Although few additional acquisitions were planned by Tsingtao beginning in 2001, the capital investment needed to modernize many of the acquired properties would require substantial outlays for years to come. Capital expenditures were estimated to be 2.5% of total sales through 2005.

### EXHIBIT W.5
Discounted Cash Flow Valuation of Tsingtao Brewing Company, Ltd. (millions of Rmb)

<table>
<thead>
<tr>
<th>Sales Forecast</th>
<th>Assumption</th>
<th>Actual 2000</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales growth rate assumption</td>
<td></td>
<td></td>
<td>25%</td>
<td>20%</td>
<td>15%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Sales</td>
<td>3,448.3</td>
<td>4,310.4</td>
<td>5,172.5</td>
<td>5,948.3</td>
<td>6,543.1</td>
<td>7,197.5</td>
<td></td>
</tr>
</tbody>
</table>

**Calculation of Discounted Cash Flow Value**

<table>
<thead>
<tr>
<th>NOPAT</th>
<th>Depreciation and amortization</th>
<th>Operating cash flow</th>
<th>Less additions to net working capital</th>
<th>Less capital expenditures</th>
<th>Free cash flow (FCF)</th>
<th>Terminal value (and assumed growth rate)</th>
<th>Present value factor (and discount rate)</th>
<th>Discounted FCF</th>
<th>Cumulative discounted FCF</th>
<th>Less present value of debt capital</th>
<th>Residual equity value</th>
<th>Shares outstanding (millions)</th>
<th>Equity value (Rmb/share)</th>
<th>Equity value (HK$/share)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2%</td>
<td>7.5%</td>
<td>402.7</td>
<td>458.0</td>
<td>514.9</td>
<td>569.8</td>
<td>618.8</td>
<td>672.1</td>
<td>(792.5)</td>
<td>307.1</td>
<td>333.9</td>
<td>361.7</td>
<td>389.8</td>
<td>420.2</td>
<td>307.1</td>
</tr>
</tbody>
</table>

Note: The discounted cash flow analysis is based primarily on sales expectations. Sales growth rate assumptions are used to generate sales expectations, which are in turn used for estimates of NOPAT (assumed as 4.2% of sales), depreciation and amortization (assumed as 7.5% of sales), additions to net working capital (assumed 1.0% of sales), and capital expenditures (assumed 2.5% of sales). Free cash flow is discounted at the 10% weighted average cost of capital. The terminal value for this baseline analysis assumes a 1% perpetual growth rate in free cash flow.
**DISCOUNT RATE.** The discount rate to be used for Tsingtao’s valuation would be the company’s weighted average cost of capital. Assuming a 34% corporate tax rate and a pre-tax cost of debt of 8.00% per annum (the cost of Tsingtao’s most recent debt), the after-tax cost of debt was estimated at 5.28% per annum.

The cost of equity was calculated using the capital asset pricing model. Using the Hong Kong market as the best indicator of equity valuation, the risk-free rate is 7.000% per annum, the equity risk premium is 6.700% per annum, and the beta of Tsingtao’s H-shares on the Hong Kong stock exchange is 0.80:

\[
\text{Cost of equity} = k_e^{\text{Tsingtao}} = k_{rf} + \beta(k_m - k_{rf}) = 7.000 + 0.80(13.700 - 7.000) = 12.36\%
\]

The final component needed for the calculation of Tsingtao’s weighted average cost of capital is the weights of debt and equity in its target capital structure. Tsingtao’s management considered a 1/3 debt and 2/3 equity capital structure appropriate over the long-term. Using these weights and plugging in the 12.68% cost of equity and 5.28% cost of debt, Tsingtao’s weighted average cost of capital (WACC) was calculated as:

\[
\text{WACC} = \left( \frac{\text{Equity}}{\text{Capital}} \times k_e \right) + \left( \frac{\text{Debt}}{\text{Capital}} \times k_d \times (1 - \text{tax}) \right) = (0.667 \times 12.36\%) + (0.333 \times 5.28\%) = 10.00\%
\]

This WACC is used to discount the future cash flows of Tsingtao for valuation purposes.

**TERMINAL VALUE.** The terminal value is critical in discounted cash flow valuation because it must capture all free cash flow value flowing indefinitely into the future (past the 2001–2005 period shown). Assuming a discount rate of 10.00%, a free cash flow growth rate into the future of 1.00% per annum (conservative), the terminal value as captured in year 5 of the analysis, using a constant dividend growth model formulation, was:

\[
\text{Terminal value} = \frac{\text{FCF}_{2005}(1 + g)}{k_{\text{wacc}} - g} = \frac{420.2(1 + 0.0100)}{0.1000 - 0.0100} = \text{Rmb4,715.6}
\]

This terminal value enters the discounted cash flow in 2005 in Exhibit W.5 and represents all expected free cash flows arising in all years after that.¹

**DCF VALUATION.** The present value of all future expected cash flows is the total enterprise value. Enterprise value is the sum of the present values of both debt and equity in the enterprise. Tsingtao’s equity value is then found by deducting the net debt due creditors and any minority interests. Total equity value divided by total shares outstanding is the fair value of equity per share. The baseline discounted cash flow valuation of Tsingtao is Rmb2.43/share (HK$2.28).

¹An alternative method frequently used in valuation analysis is to assume some multiple of net operating cash flow in the final year considered. In this case, assuming a multiple of 10, the terminal value for Tsingtao would be estimated at Rmb4,202 (10 × Rmb420.2). This technique is particularly applicable in leveraged buyouts (LBOs) and private equity ventures where the real value and purpose of the initial purchase is the eventual sale of the enterprise at a future date.
VALUATION BY MULTIPLES OF EARNINGS AND CASH FLOWS

The valuation of businesses of all kinds, small or large, domestic or multinational, goods or services, has long been as much art as science. The use of multiples, in which a ratio for the subject firm is compared to comparable ratios for competitors or recent acquisitions, is one of these more artistic processes. Similar in logic to the ratio analysis used in traditional financial analysis, it simply presents how the firm stacks up against industry comparables. Some of the most widely used measures include the P/E ratio (price/earnings-per-share), P/S ratio (price/sales), market-to-book (M/B) ratio, and a variety of ratios that compare enterprise value (EV) to either earnings or cash flows. Each of these ratios includes a market-determined value, either explicitly in the numerator or used in calculating market capitalization. This is then combined with values taken from the firm’s own financials, either in the form of earnings, cash flow, or market capitalization.

P/E RATIO. The P/E ratio is by far the most widely used of the valuation ratios. Simply stated, the P/E ratio is an indication of what the market is willing to pay for a currency unit of earnings. But more importantly, it is an indication of how secure the market’s perception is about the future earnings of the firm. Coca-Cola has long been a prime example of an MNE whose P/E ratio, typically ranging between 35 and 42, is an indicator of how sustainable global earnings and earnings growth are in the eyes of shareholders. Markets do not pay for past or present earnings. An investor purchasing a share today is taking a long position on the basis of what earnings are expected to do in the future — from that moment on.

Because Tsingtao is traded most heavily on the Hong Kong stock exchange, and that exchange is relatively more liquid and open to global investors than the Shanghai stock exchange, we shall focus on the P/E ratio calculations and comparisons of the Hong Kong listing for Tsingtao. Tsingtao’s earnings per share for 2000 were Rmb61.3 million on 900 million outstanding shares (EPS of Rmb0.068 or HK$0.064, assuming an exchange rate of Rmb1.0648/HK$). The closing share price for 2000 in Hong Kong was HK$2.20/share. The closing P/E ratio for Tsingtao in Hong Kong for 2000 was then

\[
P/E_{\text{Tsingtao}} = \frac{\text{Current share price in HK$}}{\text{Earnings for 2000 in HK$}} \cdot \frac{\text{Outstanding shares}}{\text{900,000,000 shares}} = \frac{\text{HK$2.20}}{\text{Rmb57,569,497}} = 34
\]

Tsingtao’s P/E of 34 was quite high compared to the Hong Kong stock exchange’s H-share P/E average of 12 (a ratio of 2.83:1).

If we recall our earlier statement that markets do not pay for past or present earnings, then we should also probably calculate Tsingtao’s P/E ratio not on current earnings but on future earnings. This would then be compared with the Hong Kong stock exchange’s share prices recalculated on expected earnings. Deutsche Bank Securities estimated the 2001 forecast P/E ratio for Tsingtao as 28.8 compared to its forecast of the Hong Kong H-share market’s average of 8.2. This is a ratio of 3.5:1, an even higher relative measure than before. Clearly, the market believes that Tsingtao’s earnings would be either relatively riskless into the future or that the earnings would be significantly higher in the near future.

M/B RATIO. The M/B ratio provides some measure of the market’s assessment of the employed capital per share versus what the capital cost. The book value of a firm is the
value of common stock as recorded on the firm’s balance sheet plus the retained earnings (cumulative capital reinvested from earnings). If the M/B ratio exceeds 1, the implication is that the firm’s equity is currently valued in excess of what stockholders invested in the firm. Like the P/E ratio, the magnitude of the M/B ratio, as compared with its major competitors, reflects the market’s perception of the quality of the firm’s earnings, management, and general strategic opportunities.

The M/B ratio focuses on equity in both the numerator and denominator, and is a mix of market value (numerator) and historical accounting value (denominator). It is calculated as the ratio of share price to book value per share. The M/B ratio for Tsingtao in 2000 is

\[
\frac{\text{Current share price}}{\text{Book value per share}} = \frac{HK\$2.34}{HK\$2.35} = 0.9957 = 1.
\]

According to this, Tsingtao is selling for the historical cost of the capital invested in the business. Under most typical business conditions this is interpreted as a clear signal that the company is probably undervalued and therefore a true investment opportunity.

**OTHER MULTIPLES.** Two other comparison ratios or multiples may provide additional insights into Tsingtao’s value. The 2001 forecast P/S ratio (price per share versus forecast sales per share) for Tsingtao by Deutschebank Securities was 0.56 compared with the Hong Kong H-share forecast of 0.85. This would imply an undervaluation of Tsingtao, depending on the true comparability of the other firms in the comparison.

A similar type of ratio, the ratio of 2001 forecast enterprise value (market value of debt and equity, EV) to basic business earnings (EBITDA) for Tsingtao was 7.5 compared with the Hong Kong H-share forecast of 3.7 implied a different perspective — overvaluation. The difficulty in interpreting these relative measures of value is in how Tsingtao compares with the other firms traded as H-shares on the Hong Kong stock exchange.

**SUMMARY OF VALUATION MEASURES**

Exhibit W.6 summarizes the various measures of Tsingtao’s valuation discussed. As is often the case in corporate valuations — domestic or cross-border — much of the information is conflicting. What is Tsingtao worth? Value, like beauty, is in the eyes of the beholder.

**EXHIBIT W.6**

<table>
<thead>
<tr>
<th>Valuation Method</th>
<th>Share Price</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current share price</td>
<td>Rmb2.34</td>
<td>Baseline</td>
</tr>
<tr>
<td>Discounted cash flow</td>
<td>Mean = Rmb2.43 (wide range)</td>
<td>Implies Tsingtao undervalued</td>
</tr>
<tr>
<td>P/E ratio</td>
<td>34 to market’s 12</td>
<td>Tsingtao’s potential may already be included in the price</td>
</tr>
<tr>
<td>M/B ratio</td>
<td>0.9957 or 1</td>
<td>Tsingtao is undervalued</td>
</tr>
<tr>
<td>P/S ratio</td>
<td>0.56 to market’s 0.85</td>
<td>Tsingtao is undervalued</td>
</tr>
<tr>
<td>EV-to-EBITDA ratio</td>
<td>7.5 to market’s 3.7</td>
<td>Tsingtao is overvalued</td>
</tr>
</tbody>
</table>
Acquisition and Corporate Governance Failures: The Case of Telecom Italia

Some of the gaps and failures in corporate governance are illustrated by the ownership changes of Telecom Italia (Italy) between 1997 and 2001. When privatized in 1997, Telecom Italia (TI) was the largest privatization in Continental European history. By 1998 TI was the sixth largest phone company in the world, employing more than 80,000 workers. In addition to its traditional fixed line telephony services, TI also held 60% ownership in Telecom Italia Mobile (TIM). TIM held an 80% market share of mobile telecommunications services in Europe at that time. Telecom Italia’s performance had been deteriorating. Franco Bernabè, an experienced turnaround artist at another Italian privatization, was convinced to take over the challenge of revitalizing Telecom Italia in November 1998.

Olivetti. On February 20, 1999, Olivetti (Italy) announced a public tender offer for Telecom Italia of €10 per share. At this time the single largest shareholder in TI was the Italian government, whose remaining ownership in the company totaled 3.4% of the outstanding shares. Olivetti, however, was only able to finance the acquisition. A group of investors from Brescia, Italy, who saw the highly fragmented ownership structure of TI as an opportunity, sought out Roberto Colannino. Colannino controlled a company called Hopa. Hopa, in conjunction with the Brescia Group, formed Bell, an Italian holding company, to gain control of Olivetti. As illustrated in Exhibit 1, Bell gained control over Olivetti with only a 23% ownership share.

Telecom Italia’s CEO, Franco Bernabè, who had been on the job at TI for only three months, rejected the approach by Olivetti and its CEO, Roberto Colannino. Bernabè publicly fought the takeover attempt, exploring all the usual tactics to defend TI against a hostile takeover. Colannino promised shareholders an improvement in TI’s performance through a series of cost-cutting measures, including a reduction in employment that would dismiss 20,000 people. Bernabè responded in kind, promising the same 20,000 head-count reduction plus an additional 20,000 reduction through the selective sale of various TI businesses.

In March 1999, Bernabè proposed to his stockholders that TI buy all the remaining publicly held shares of Telecom Italia Mobile, making the purchase price of TI higher and the debt carried by TI higher. Both results would make the hostile acquisition by Olivetti more difficult. An additional component of this defensive strategy was that Bernabè believed if TI raised this much additional debt, it would be effectively using up much of the available lending capacity in Italy for acquisitions at this time, shutting Olivetti out of raising large sums of debt capital to finance its own acquisition bid.

In late March TI’s stockholders accepted the tender offer of Colannino and Olivetti. The offer price, now €11.50 per share, cost Olivetti $65 billion. Two additional issues came to light after the shareholders’ acceptance of the Olivetti bid. First, Olivetti had added a manipulative tactic the day before the shareholder meeting: It had sold 24.4 million shares of TI in one day, sending TI’s price down markedly. This acted to increase the attractiveness of the tender price the following day. Second, and of more consequence in the following years, Olivetti had acquired an enormous amount of debt in order to finance the acquisition, making this a true leveraged buyout (LBO). Olivetti would be required to devote significant proportions of its cash flows to debt service.

Over the following two years the new CEO Roberto Colannino drained Telecom Italia of its earnings. Olivetti instructed TI to distribute over 90% of earnings to the controlling owner, Olivetti, to aid in its ability to service its debt. The minority shareholders in Telecom Italia were furious and frustrated. TI’s earnings were being siphoned off for Olivetti’s exclusive benefit, leaving TI’s capital expenditure in investments significantly behind its competitors.

As illustrated in Exhibit 1, Olivetti had effected the takeover of Telecom Italia with a series of interconnected controlling interests. This structure, often referred to as Chinese boxes or a corporate cascade, allowed Colannino and the Brescia Group to gain control over an enormous quantity of assets/businesses with little initial investment. In many countries this would be prohibited, but not in Italy at this time.

Pirelli/Benetton. Telecom Italia’s share price, like that of most telecom companies worldwide, languished throughout 2000 and early 2001. In July 2001, the same Brescia investors behind the previous hostile acquisition now saw an opportunity to exit the business with a significant profit. Marco Tronchetti Provera, the chairman and CEO of Pirelli (Italy), in combination with Benetton (Italy), formed a new holding company named GPI Newco, which was owned 60% by Pirelli and 40% by Benetton. They approached the Brescia Group, independently of Roberto Colannino, and offered to purchase its holdings in Bell at an 80% premium over what they had invested. The Brescia Group was more than happy to accept. Colannino, no longer in control of either Olivetti or Telecom Italia, resigned. Because this controlling interest in Bell, Olivetti, Telecom Italia, and Telecom Italia Mobile was not through

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MINI-CASE

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the public markets, none of the existing shareholders—minority shareholders—reaped any benefits from the change in control.

This move by Provera was not well received by his shareholders. On the date of Pirelli’s announcement of its acquisition of control in Olivetti and Telecom Italia, Pirelli’s shares lost roughly one sixth of their value. The investment of €7 billion by Provera used the entire proceeds of two optical units sold in late 2000 by Pirelli. Investors had hoped for a better utilization of this capital than a leveraged entrance into the telecom industry. Once again, minority shareholders, this time in Pirelli, reaped no rewards, and many exited the investment as a result of their unwillingness to hold shares in a firm that was now in the telecom industry.

The corporate cascade of both listed and unlisted companies participating in the control of Telecom Italia was now larger than ever. As illustrated in Exhibit 2, a few investors in a few companies now controlled a significant share of Italian and Continental European business.
Summary of Learning Objectives

Examine recent trends in cross-border mergers and acquisitions

- The number and dollar value of cross-border mergers and acquisitions has grown rapidly in recent years, but the growth and magnitude of activity is taking place in the developed countries, not the developing countries.

Evaluate the motivations for MNEs to pursue cross-border acquisitions

- As opposed to the fighting and scraping for market share and profits in traditional domestic markets, an MNE can expect greater growth potential in the global marketplace. There are a variety of paths by which the MNE can enter foreign markets including greenfield investment and acquisition.

Identify the driving forces behind the recent surge in cross-border mergers and acquisitions

- The drivers of M&A activity are both macro in scope—the global competitive environment—and micro in scope—the variety of industry and firm-level forces and actions driving individual firm value.
- The primary forces of change in the global competitive environment—technological change, regulatory change, and capital market change—create new business opportunities for MNEs, which they pursue aggressively.

Detail the stages in a cross-border acquisition and show how finance and strategy are intertwined

- The process of acquiring an enterprise anywhere in the world has three common elements: 1) identification and valuation of the target; 2) completion of the ownership change transaction (the tender); and 3) the management of the postacquisition transition.

Examine the difficulties in actually settling a cross-border acquisition

- The settlement stage of a cross-border merger or acquisition requires gaining the approval and cooperation of management, shareholders, and eventually regulatory authorities.

Show how the complexities of postacquisition management are related to the creation of value

- Cross-border mergers, acquisitions, and strategic alliances, all face similar challenges: They must value the target enterprise on the basis of its projected performance in its market. This process of enterprise valuation combines elements of strategy, management, and finance.

Identify the legal and institutional issues regarding corporate governance and shareholder rights as they apply to cross-border acquisitions

- One of the most controversial issues in shareholder rights is at what point in the accumulation of shares is the bidder required to make all shareholders a tender offer. For example, a bidder may slowly accumulate shares of a target company by gradually buying shares on the open market over time. Theoretically, this share accumulation could continue until the bidder had 1) the single largest block of shares among all individual shareholders, 2) majority control, or 3) all the shares outright.
- Every country possesses a different set of rules and regulations for the transfer of control of publicly traded corporations. This market, the market for corporate control, has been the subject of enormous debate in recent years.

Explain the alternative methods for valuing a potential acquisition target

- There are a variety of valuation techniques widely used in global business today, each with its relative merits. In addition to the fundamental methodologies of discounted cash flow (DCF) and multiples (earnings and cash flows), there are also a variety of industry-specific measures that focus on the most significant elements of value in business lines.
- The DCF approach to valuation calculates the value of the enterprise as the present value of all future free cash flows less the cash flows due creditors and minority interest holders.
- The P/E ratio is an indication of what the market is willing to pay for a currency unit of earnings. It is also an indication of how secure the market’s perception is about the future earnings of the firm and its riskiness.
• The market-to-book ratio (M/B) is a method of valuing a firm on the basis of what the market believes the firm is worth over and above its capital its original capital investment and subsequent retained earnings.

QUESTIONS

1. Shareholder value. If most bidders pay the owners of the target firm the “true value” of the firm, how does a bidder create value for its own shareholders through the acquisition?

2. Management and shareholder value. Why is it that acquisitions provide management with a greater potential for shareholder value creation than internal growth?

3. Cross-border drivers. List and explain at least six drivers for cross-border mergers and acquisitions.

4. Stages of acquisition. The three stages of a cross-border acquisition combine all elements of business (finance, strategy, accounting, marketing, management, organizational behavior, etc.), but many people believe finance is relevant only in the first stage. List specific arguments why finance is just as important as any other business field in stages two and three of a cross-border acquisition.

5. Shareholder rights. Why do many national governments create specific laws and processes for one company to acquire the control and ownership of another company? Why not just let the market operate on its own?

6. Settlement. What factors are considered when deciding how to settle an acquisition in cash or shares?

7. Corporate cascades. Why do some countries object to multiple levels of ownership control as seen in the case of Telecom Italia? Do minority shareholders get treated any differently in these cascades than in other ownership structures?

8. Free cash flow versus profit. Consider the following statement: “Academia always focuses on the present value of free cash flow as the definition of value, yet companies seem to focus on ‘earnings’ or profits.”
   a. Do you think this is true?
   b. What is the basic distinction between cash flow and profit?
   c. How do we convert a measure of profit (say, net income on a profit-and-loss statement) into a measure of cash flow?

9. Discounted cash flow valuation. Discounted cash flow (DCF) valuation requires the analyst to estimate and isolate the expected free cash flows a specific asset or investment will produce in the future. The analyst then must discount these back to the present.
   a. Are the cash flows and discount rate before or after tax? Do the rates need to be the same or should one be before tax and the other after tax?
   b. Where does the discount rate for the investment come from? What assumptions should it make about the way the investment will actually be financed?
   c. A very common criticism of DCF is that it “punishes future value and therefore is biased against long-term investments.” Construct an argument refuting this statement.

10. Comparables and market multiples. What valuation insight or information is gained by looking at market multiples like P/E ratios that is not captured in the information gained through discounted cash flow analysis?

11. Market-to-book. What is the market-to-book ratio, and why is it considered so useful in the valuation of companies?

12. Tsingtao (A). Recommend which valuation measure, or combination of valuation methods, AB should use.

13. Tsingtao (B). What share price should AB offer? Is this an opening offer or best offer in negotiations?

14. Tsingtao (C). Identify the postacquisition (Phase III) problems that AB is likely to face if it acquires a larger minority ownership position in Tsingtao.

PROBLEMS

1. P/E Valuation of Global.Com. A new worldwide cellular phone company, Global.com (USA), is one of the new high-flying telecommunication stocks which are valued largely on the basis of price/earnings multiples. Other firms trading on U.S. exchanges in its similar industry segment are
currently valued at P/E ratios of 35 to 40. Given the following earnings estimates, what would you estimate the value of Global.Com to be?

<table>
<thead>
<tr>
<th>Last Year’s</th>
<th>This Year’s</th>
<th>Next Year’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPS</td>
<td>EPS</td>
<td>EPS</td>
</tr>
<tr>
<td>$(1.20)</td>
<td>$0.75</td>
<td>$1.85</td>
</tr>
</tbody>
</table>

2. **Bidding on Sao Paulo Cellular Rights.** A consortium of global telecommunication firms is about to submit a bid to purchase the rights to provide cellular telephone services to central Sao Paulo. The bid must be submitted, and payment made if awarded the bid, in U.S. dollars, not in Brazilian real (R$). The consortium has finalized the following forecasts of cash flows, exchange rates, and potential discount rates.

<table>
<thead>
<tr>
<th>Year 0</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated CF (millions of R$)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Best case</td>
<td>(1,350)</td>
<td>550</td>
<td>2,000</td>
</tr>
<tr>
<td>Moderate case</td>
<td>(1,350)</td>
<td>550</td>
<td>1,600</td>
</tr>
<tr>
<td>Worst case</td>
<td>(1,350)</td>
<td>550</td>
<td>1,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expected Exchange Rate (R$/S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Best case</td>
</tr>
<tr>
<td>Moderate case</td>
</tr>
<tr>
<td>Worst case</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Discount rate (R$ terms)</th>
<th>32.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discount rate (US$ terms)</td>
<td>18.0%</td>
</tr>
</tbody>
</table>

Perform a DCF analysis on the potential investment and propose a final bid for submission.

**Private Equity in Latin America — The Soto Group.** (Use the following private equity problem to answer Questions 3 through 5.) Private equity focuses on purchasing small privately-held firms, restructuring them with infusions of capital and professional management, and reselling them several years later (either to another private buyer or through a public offering). This means that their value to the private equity investors is in their terminal value — their value when taken public several years from now.

The Soto Group is a private equity fund based in Mexico City. The Group is evaluating the prospects for purchasing Guga Avionics (Buenos Aires), an aviation operating and management firm with current business operations throughout Argentina and southern Brazil. The Soto Group has, through their due diligence process, acquired the needed financial statements, inventory of assets, and assessment of operations. Soto’s valuation staff typically values the potential target on both an *a priori* basis (current structure and management strategy) and an *ex post* basis (expected values after capital and management expertise injections).

The second major set of “ifs” associated with acquiring Guga is what it could sell for in three years. The Soto Group has an unbending internal rule that every firm acquired must be restructured, revitalized, and ready for public sale in three years from deal consummation, or less. Given market multiples on the Buenos Aires Bolsa at this time, a value of 18 to 20 times current free cash flow (year 3) would be considered aggressive. The *a priori* analysis, acquired from Guga Avionics and adjusted by Soto’s own valuation and market experts, appears in Exhibit W.7.

**EXHIBIT W.7**

*A priori* Financial Forecast

| Guga Avionics, Buenos Aires, Argentina (millions of Argentine pesos) |
|-------------------------|-------------------------|-------------------------|-------------------------|
| **Year 0** | **Year 1** | **Year 2** | **Year 3** |
| Gross revenues | 210 | 235 | 270 | 325 |
| Less direct costs | (132) | (144) | (162) | (190) |
| Gross profit | 78 | 91 | 108 | 135 |
| Gross margin | 37% | 39% | 40% | 41% |
| Less G&A | (16) | (17) | (18) | (19) |
| Less depreciation | (24) | (24) | (24) | (24) |
| EBIT | 38 | 50 | 66 | 92 |
| Less interest | (28) | (30) | (30) | (28) |
| EBT | 10 | 20 | 36 | 64 |
| Less taxes @ 30% | (3) | (6) | (11) | (19) |
| Net profit | 7 | 14 | 26 | 45 |
| Return on sales | 3% | 6% | 9% | 14% |

The Soto Group believes that it can reduce financing expenses by 25% in years 1 and 2, and 35% in year 3. It also believes that by using its own operational experience, it can reduce direct costs by 15%, 20%, and 25% in years 1, 2, and 3, respectively. The big question is revenue enhancement. Guga has done a solid job of promoting and expanding service revenues in the past several years. At most, the Soto
Group believes it may be able to expand gross revenues by 5% per annum over current forecasts.

3. **Guga Avionics Valuation (A).** Using this data, as the lead member of the Soto Group’s valuation staff, what is the difference between *a priori* and *ex post* earnings and cash flows?

4. **Guga Avionics Valuation (B).** What is the difference between *a priori* and *ex post* sale value at the end of year 3?

5. **Soto Group and Guga Avionics.** What would you recommend — in addition to the current Soto plan — to enhance the profit and cash flow outlook for Guga if acquired?

**Tsingtao Brewery Company.** Use the spreadsheet analysis of Tsingtao Brewery Company (*spreadsheet on Web site*) that appears in the chapter to answer Questions 6 through 10.

6. **Tsingtao Brewery Company (A).** As described in the chapter, Anheuser Busch (AB) is interested in further analysis of the potential value represented by the new-found strategic and operational direction of Tsingtao. The baseline analysis assumed some rather aggressive growth rates in sales. AB wishes to find out what the implications are of slower sales growth, say 15% per annum throughout the 2001 to 2005 period, on the discounted cash flow equity value of the company. And, assuming sales growth is indeed slower, AB wishes to determine the compounded impact of a declining NOPAT margin, say 3.6% of sales, rather than the baseline assumption of 4.2% of sales, on equity value. Perform the analysis.

7. **Tsingtao Brewery Company (B).** Returning to the original set of assumptions, AB is now focusing on the capital expenditure and depreciation components of the valuation. Tsingtao has invested heavily in brewery upgrades and distribution equipment in recent years, and hopes that its capital expenditures are largely done. However, if a number of the recent acquisitions require higher capex levels, AB wants to run a scenario to focus on that possibility. What is the impact on Tsingtao’s discounted cash flow value if capex expenditures were assumed to be 3.5% of sales rather than the baseline assumption of 2.5%? What is the result of combining that with an assumed depreciation level of 8.5% as opposed to 7.5% (baseline) for the time period of the analysis?

8. **Tsingtao Brewery Company (C).** Returning to the original set of assumptions, one of the truly controversial components of all discounted cash flow analysis is the impact terminal value calculations have on equity value. AB wishes to explore the following sensitivities to the DCF valuation:
   a. Assuming no terminal value, what is the DCF equity value per share?
   b. Assuming a terminal value growth rate of 0%, what is the DCF equity value per share? What percentage of the total DCF value is the terminal value?

9. **Tsingtao Brewery Company (D).** One of AB’s analysts is quite pessimistic on the outlook for Tsingtao. Although the company did indeed make major strides in reducing NWC needs in recent years, much of that was accomplished before really tackling the complexity of absorbing many of these new acquisitions. The analyst argues that, at best, sales growth will average 12% for the coming five-year period and that NWC will most likely rise to 3% of sales (baseline assumption was 1%). What does this do to the equity valuation of Tsingtao?

10. **Tsingtao Brewery Company (E).** Finally, the valuation staff wants to address a full scenario of what they consider best-case and worst-case analysis, assuming the baseline analysis is somewhere in between (moderate).

<table>
<thead>
<tr>
<th></th>
<th>Best Case</th>
<th>Baseline</th>
<th>Worst Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales growth</td>
<td>20%</td>
<td>Variable</td>
<td>10%</td>
</tr>
<tr>
<td>NOPAT of sales</td>
<td>4.4%</td>
<td>4.2%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Depreciation</td>
<td>8.5%</td>
<td>7.5%</td>
<td>6.5%</td>
</tr>
<tr>
<td>NWC of sales</td>
<td>0.8%</td>
<td>1.0%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Capex of sales</td>
<td>1.5%</td>
<td>2.5%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Terminal value growth</td>
<td>2.0%</td>
<td>1.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Evaluate the best-case and worst-case scenarios for Tsingtao.
Internet Exercises

1. **Intellectual property and valuation.** The late 1990s saw the rise of corporate valuations arising from ownership of various forms of intellectual property, rather than the traditional value arising from goods or services production and sale. Use the following Web site as a starting place and prepare a management brief on the current state of valuing intellectual property.

   Intellectual Property Valuation
   http://valuationcorp.com/

2. **Market capitalization of Brahma of Brazil.**

   Brahma is one of the largest publicly-traded firms in Brazil. It is listed on both the Bovespa and the New York Stock Exchange (ADRs).

   Using historical data that can be found on one of the sources below, answer the following questions.

   Hoovers
   http://www.hoovers.com
   Yahoo
   http://www.yahoo.com

   a. How did Brahma’s share price — in both real and U.S. dollar terms — react to the January 1999 Brazilian real devaluation?

   b. Would a firm like Brahma be a more or less attractive target of foreign investors after the real’s devaluation?